

PHEV Engine Cold Start Emissions Management

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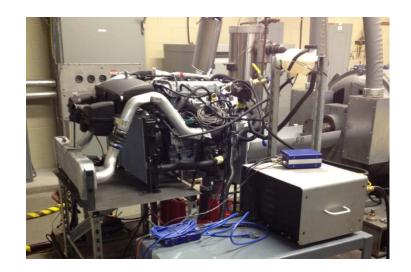
Poster Location P-05





PHEV Engine Cold Start Emissions Management

- Test Set-up:
 - Production engine, cooling loop and after-treatment
 - Open controller
 - Hardware-In-the-Loop emulating series PHEV



- Series PHEV specific optimization:
 - Motored vs. conventional starts:
 - Up to 38% reduction in hydrocarbons emissions
 - Elevated idle speed and load:
 - > 22% faster catalyst light off
 - > 27% reduction in hydrocarbons emissions
 - > Same Nitrogen Oxide emissions

